



USING WICKES POLYCARBONATE SHEETING

As one of the toughest plastics known to man, polycarbonate is rapidly proving itself to be an excellent material for roofing purposes. In its twinwall and triplewall sheet form, it is the perfect replacement for wired glass, or corrugated sheeting. A 'must' on modern buildings where light transmission and appearance are high priorities,

where an insulated roof is required, where lightweight material is important and strength is essential.

Our long life 10 and 16mm thick, double sided-UV protected, polycarbonate sheeting is able to satisfy all these requirements.

Major features include:-

- Material 200 times stronger than glass
- Approximately 5 times lighter than glass
- Shatterproof
- Flexible
- Transmits up to 90% of available light
- Built-in protection against harmful UV rays to both sides
- Class 1 Spread of Flame rating to BS 476 Part 7 1971
- Insulates like sealed unit double glazing
- Maintenance free
- Available in twin and triplewall versions

Although used chiefly as a conservatory roofing sheet along with special fixing profiles and beads as described later, the sheeting is also suitable for a variety of other applications such as glazing and insulating greenhouses, for glazing porches, for carport roofs, and for roofing sheds or workshops to allow daylight in. It also has uses as insulated cloche and cold frame sheeting.

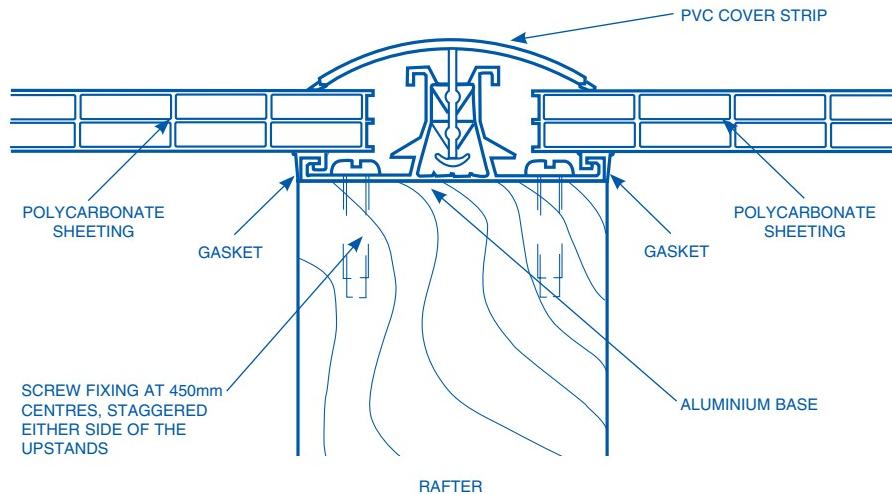
HOW TO USE POLYCARBONATE SHEETING

Our 10 and 16mm polycarbonate sheeting can be fitted vertically, as for the sides of a greenhouse or porch, or even a partially enclosed carport. More often, however, it is used on a roof with a gentle slope to permit the easy run-off of rainwater into guttering. The minimum slope should be about 5°.

The sheets have a natural tendency to expand and contract with changing temperature. For this reason they are fitted into special glazing bars down the long edges which are specially designed to allow for this movement. The aluminium glazing bars are screwed to timber supports (joists) at maximum 920mm centres for the 3m and 4m x 900mm sheets. The additional 20mm for the centres dimension allows for fitting into the glazing bars and sideways expansion. Once laid in the glazing bars the sheets are held in place with a snap down cover strip. **Diagram A**.

KEEP INFORMED

- Look for other Good Idea Leaflets that could help you with your current project.
- Check that your Good Idea Leaflets are kept up to date. Leaflets are regularly changed to reflect product changes so keep an eye on issue dates.
- If you would like to be put on our mailing list for the Wickes Catalogue call **0845 274 1000**
- Visit our website **wickes.co.uk**

A GLAZING FOR ASSEMBLY

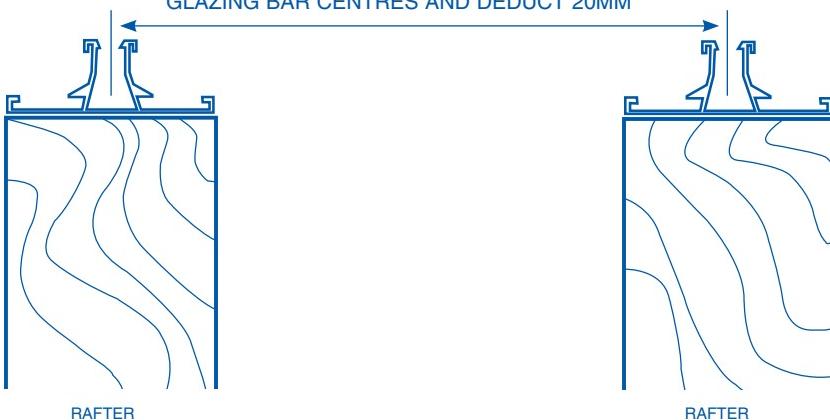
Also available is twinwall polycarbonate: 2.5m x 700 x 10mm. The joist centres for this would be 720mm. More often than not sheets will be cut to width as described later but the 20mm reduction in width between the glazing bar centres must always be taken into account. **Diagram B.**

Effectively supports (purlins) across the sheet width should be at maximum 1500mm centres a roof constructed with 3 metre long sheets would only require one purlin with 4 metre sheets requiring two.

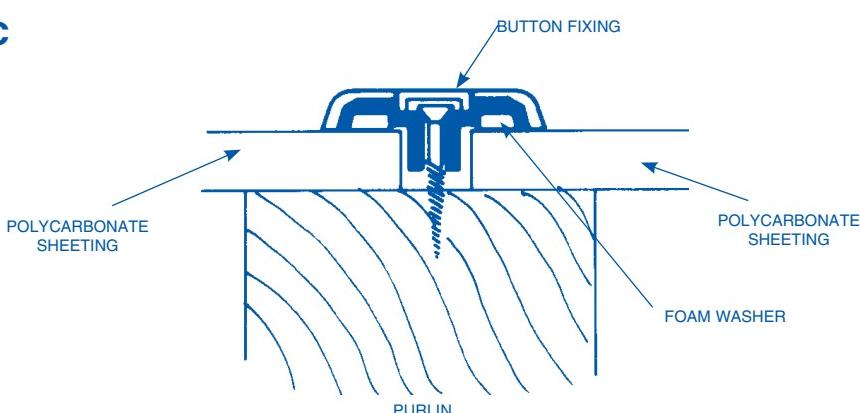
In general, it can be said that mechanical fixings are not required for fixing roofing sheets when the glazing bars and cover strips are used. However in view of extreme weather conditions which have prevailed in recent years, we do now recommend that some mechanical fixings are used for extra security. These are limited to one button fixing at the bottom of each sheet in the centre and fixed to the front fascia, and one to each purlin, again in the sheet centre.

B

FOR SHEET WIDTH MEASURE BETWEEN
GLAZING BAR CENTRES AND DEDUCT 20MM



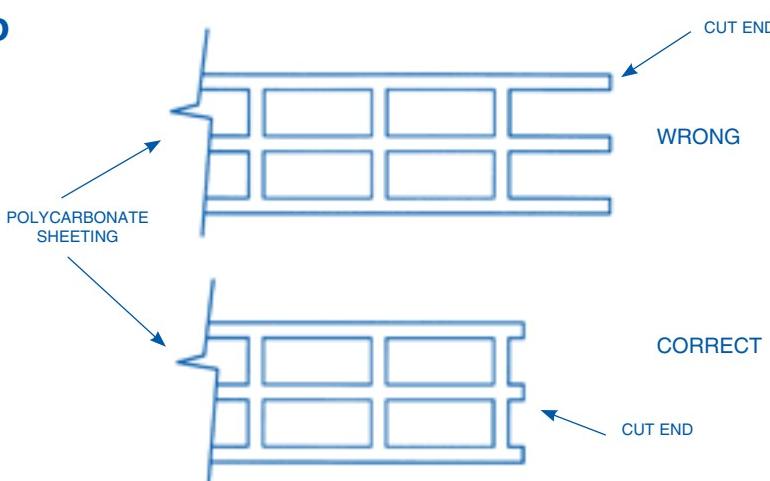
The starter hole for button fixings should be made in the centre of a sheet cavity rather than through a wall if possible and will need a 16mm diameter hole. This is larger than the actual button size but allows for expansion. When making the fixing ensure that the foam washer is in place under the button. Drive in the screw and fit the cover firmly without overtightening since this could lead to sheet distortion. **Diagram C.**

C

At the top ends of the sheets and before the cover strips are fitted you will also need to drive one 25mm long galvanised wire nail through the sheet into the wall plate below. This nail is purely to hold the sheet centrally in place and to stop it sliding until the cover strips and buttons are fitted and later covered with flashing. It is perfectly safe to drive the nail directly through the polycarbonate about 25mm from the top.

**CUTTING AND PREPARING
POLYCARBONATE SHEETING**

Polycarbonate, despite its strength, can be cut using a fine toothed panel saw. When cutting to width you should endeavour to cut close to the outside of one of the internal walls as in **Diagram D.**

D

When supplied, the sheets have protective polythene film covering each side. Do not remove the polythene films until the sheets are cut and ready to fit.

Both ends of the sheet are supplied sealed to prevent the entry of dust and dirt during transit. When cutting to length plan to leave the 'top' end seal intact.

If it should be removed accidentally it should be replaced with a self adhesive tape so that sheet has a permanently sealed top end. The bottom, cut, end of the sheet should be initially fitted with, our anti-dust filter tape - available in 10m rolls - and then a cover bead. Cut a length of Wickes Polycarbonate Anti-dust End Tape, approximately 25mm longer than the width of the sheet. Remove the backing paper from the tape and align the tape accurately so that the exposed channel ends, at the bottom of

the sheet, can breathe through the centre section of the tape. Then carefully fold the corners, approximately 12mm each side, and press into place. Cutting will inevitably create swarf in the cavities and this must be removed. This is best done with a vacuum cleaner, but if this proves ineffective remove the top sealing tape and blow through the flutes with a pressure air line. Reseal the top end.

Every care should be taken to avoid getting moisture in the flutes. Do not, for example,

WALL END FIXINGS

On a sloping roof butting up to a house wall the joint between the wall and the polycarbonate is sealed using flashing which runs up the house wall where it is cut into a mortar joint normally, and, overlaps the polycarbonate at the bottom end. **Diagram G.**

At the end of a lean-to conservatory, the outside edge of the glazing bar is covered by a special profile which also protects the top of the gable end cladding. The cover strip is fitted on top. **Diagram H.**

If a glazing bar is fitted to a wallplate running down the house wall the same special edge profile is used to cover the aluminium adjacent to the wall, but the overlapping edge must be cut off. Once the cover strip is fitted, flashing is run down the house wall and overlaps the cover strip. **Diagram I.**

SEALANTS & FLASHINGS

Although our polycarbonate sheeting is extremely tough and hardwearing, as with other thermoplastic materials it can be adversely affected by chemical agents and therefore care must be taken when choosing items such as sealants and flashing which will be in contact with the sheeting.

SEALANTS

In order to allow the polycarbonate sheet to expand and contract normally, a non-hardening silicone sealant should be used where specified. Some silicones use curing agents which cause embrittlement, discolouration and cracking of the polycarbonate so you should always use our Silicone for Plastics and Polycarbonate, more commonly known as 'Silicone P'. If in doubt about the suitability of any other silicone sealant consult the supplier.

Never use any other form of sealant in contact with the polycarbonate.

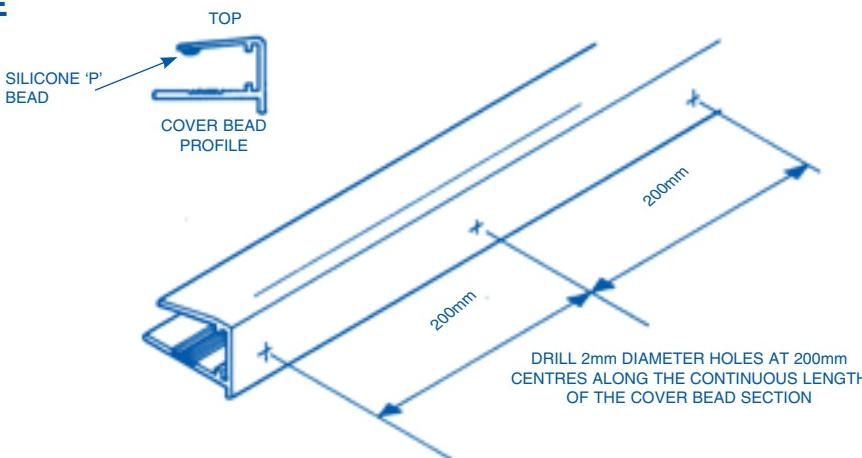
FLASHINGS

As with sealants, some forms of flashing may affect the polycarbonate sheeting. Aluminium, galvanised steel, zinc or lead are all acceptable. Most self adhesive flashings are also acceptable but should only be used in maximum 2 metre lengths with a 150mm overlap to allow for thermal expansion and contraction.

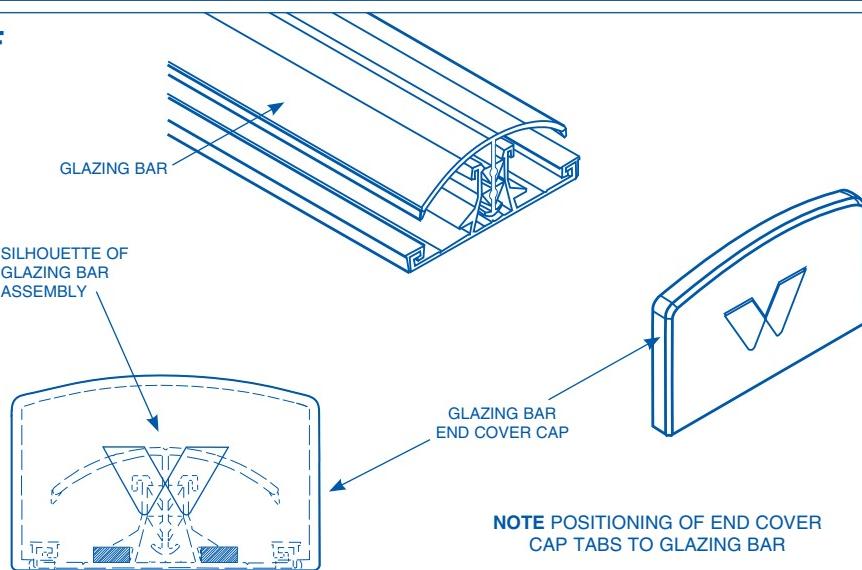
LOAD BEARING

At no time should you stand on the polycarbonate sheeting unless this is protected by boarding to spread the load. Additionally, any boarding should be set on protective material to prevent the surface of the polycarbonate being scratched.

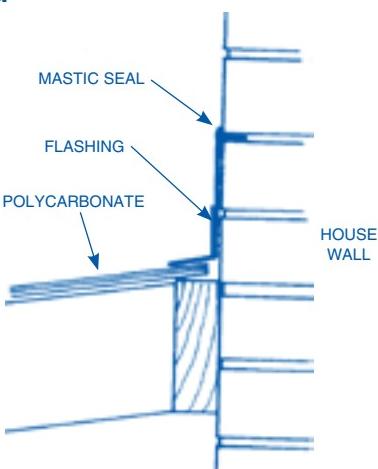
E



F



G



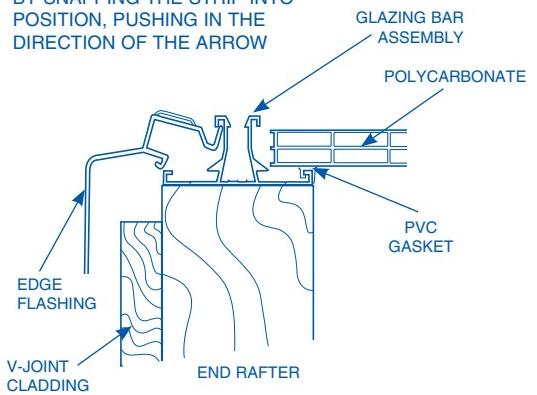
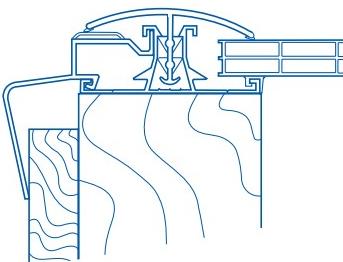
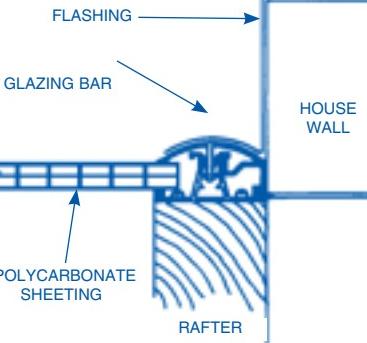
leave sheets with open edges lying on wet grass. Store them in a dry place. Under no circumstances try to remove dust or swarf from inside the flutes with water.

After fitting the sheets the end cover bead is fitted between the glazing bar cover beads. This is done as in Diagram E with a fine line of silicone used to secure the bead to the sheet. Small holes should be drilled in the bottom of the beads at 200mm centres to allow any trapped moisture to escape.

Push-fit covers supplied with the glazing bars then conceal the ends of the aluminium glazing bars between the bottom cover strips for a neat finish. **Diagram F.**

H

THE EDGE FLASHING IS FITTED BY SNAPPING THE STRIP INTO POSITION, PUSHING IN THE DIRECTION OF THE ARROW

**ASSEMBLY COMPLETE****I**

CLEANING

The polycarbonate sheeting should only be cleaned with water and a mild detergent applied with a clean sponge and a soft cloth. Avoid using abrasive cleaners. The outside surface can always be hosed down.

Never use solvents to remove marks. However, wet paint can be removed with white spirit but excess spirit must be removed immediately.

Whilst every care has been taken to ensure that the product design, descriptions, specifications and techniques of constructing the products are accurate at the date of printing. Wickes products will inevitably change from time to time and the customer is advised to check that the design, descriptions, specifications and techniques of constructing any of the products described in this leaflet are still valid at the time of purchase or placing an order.

© Wickes Building Supplies Limited 2011

All rights reserved. No part of this publication may be produced or transmitted in any form or by any means electronic, mechanical, photocopying, recording or otherwise or stored in any retrieval system of any nature without the written permission of the copyright holder and the publisher.